

=> d his

(FILE 'USPAT' ENTERED AT 09:41:12 ON 12 JUL 1999)

L1 1067 S 166/292,293/CCLS  
L2 317 S 106/694,695,696/CCLS  
L3 1361 S L1 OR L2  
L4 14433 S ALUMINUM(3A)SILICATE#  
L5 36 S L3 AND L4  
L6 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L7 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L8 31186 S KAOLIN# OR METAKAOLIN# OR HALLOYSITE# OR DICKITE# OR NAC  
RIT  
L9 40 S L1 AND (L4 OR L8)  
L10 11278 S GYPSUM#  
L11 17 S L9 AND L10  
L12 13636 S FOAMING(3A)AGENT#  
L13 3 S L9 AND L12  
L14 3 S L9 AND L12  
SAVE ALL  
L15 7312 S OFFSHORE  
L16 7 S L9 AND L15  
SAVE ALL  
L17 265 S 106/718,719/CCLS  
L18 28 S L17 AND (L4 OR L8)  
L19 0 S L18 AND L9

=> d 118 cit 1-28

1. 5,792,251, Aug. 11, 1998, Method of producing **metakaolin**; William D. Smiley, et al., 106/484, 486, **718**, 811, 819; 423/328.1, 329.1; 501/141 [IMAGE AVAILABLE]
2. 5,788,762, Aug. 4, 1998, Cementitious systems and methods of making the same; Gregory S. Barger, et al., 106/706, 707, 708, 709, 710, 715, 716, **718**, 722, 732, 735, 739, 772, 773, 774 [IMAGE AVAILABLE]
3. 5,769,938, Jun. 23, 1998, Waste-treating agent; Kenji Ueshima, et al., **106/718**, 697, 721, 737, 802, 811, 815, DIG.4; 210/681, 688, 749; 588/251, 252, 255, 256, 257, 901 [IMAGE AVAILABLE]
4. 5,693,137, Dec. 2, 1997, Use of alumina clay with cement fly ash mixtures; Robert W. Styron, 106/706, 692, 695, 705, 709, **718**, 811, 819, DIG.1; 264/DIG.49 [IMAGE AVAILABLE]
5. 5,650,004, Jul. 22, 1997, Cement plaster composition, additive therefor and method of using the composition; Michael D. Yon, **106/719**, 721, 724, 727, 737, 738, 794, 796, 803, 806, 808, 811, 812, 817, 819, 823, DIG.4; 427/427 [IMAGE AVAILABLE]
6. 5,637,144, Jun. 10, 1997, Asbestos replacer; Burton K. Whatcott, et al., **106/718**, 486, 487, **719**, 720, 721, 803, 811, 812, 819, 823, DIG.4 [IMAGE AVAILABLE]
7. 5,626,665, May 6, 1997, Cementitious systems and novel methods of making the same; Gregory S. Barger, et al., 106/706, 707, 708, 709, 710,

715, 716, **718**, 722, 732, 735, 739, 772, 773, 774 [IMAGE AVAILABLE]

8. 5,588,990, Dec. 31, 1996, Pozzolan cement compositions and admixtures therefor; Jonathan E. Dongell, 106/716, **718**, 811, 819 [IMAGE AVAILABLE]

9. 5,531,824, Jul. 2, 1996, Method of increasing density and strength of highly siliceous cement-based materials; J. Pate Burkes, et al., 106/737, 705, 706, 714, **718**, 738, 789, 811, 812, 819, DIG.1; 264/340; 427/421, 427, 430.1, 443.2, 444 [IMAGE AVAILABLE]

10. 5,378,279, Jan. 3, 1995, Enhanced cement mixed with selected aggregates; Michel Conroy, **106/719**, 720, 724, 728, 729, 823, DIG.1 [IMAGE AVAILABLE]

11. 5,288,807, Feb. 22, 1994, Vinyl monomer compositions with accelerated surface cure; Frederick P. Hinz, 525/279; **106/719**; 524/8, 785, 853, 854, 856; 525/245, 263, 289, 290, 292, 303, 304, 310, 316 [IMAGE AVAILABLE]

12. 5,167,710, Dec. 1, 1992, Process for manufacturing a cement mixture containing reinforcing fibers and products obtained therefrom; Michel Leroux, et al., 106/711, 684, 688, 691, 694, 698, 716, **718**, 724, 738, 773, 790, 801, 803, 814, 816, 817, 819, 823 [IMAGE AVAILABLE]

13. 5,122,191, Jun. 16, 1992, Admixture and cement composition using same; Masahiro Morozumi, et al., 106/811, **718**; 501/150 [IMAGE AVAILABLE]

14. 5,098,612, Mar. 24, 1992, Method of preparing solidified and stabilized hazardous or radioactive liquids; Farrell D. Rowsell, 588/4; 106/648, **719**, 724, 774, DIG.1; 588/252 [IMAGE AVAILABLE]

15. 4,994,114, Feb. 19, 1991, Method for selecting a pozzolan intended to be incorporated into a composite material comprising cement and glass; Jacques Thiery, et al., 106/713, 711, **718** [IMAGE AVAILABLE]

16. 4,840,672, Jun. 20, 1989, Lightweight insulating boards and process for manufacturing same; Emile Baes, 106/716, 681, **718**, 720, 731; 523/218; 524/2, 4, 5, 436, 449 [IMAGE AVAILABLE]

17. 4,684,407, Aug. 4, 1987, Hydraulic cement composition and process for producing cement shapings; Norihiro Umezawa, et al., 106/706, 708, 714, **719**, 725, 809; 524/6 [IMAGE AVAILABLE]

18. 4,673,437, Jun. 16, 1987, Concrete block additive and improved concrete blocks produced therewith; Lawrence F. Gelbman, **106/718**, 723, DIG.4; 264/336, DIG.43 [IMAGE AVAILABLE]

19. 4,428,775, Jan. 31, 1984, Reinforced cement sheet product containing no asbestos for fabricating on hatschek machine; Robert M. Johnson, et al., 524/4; **106/719** [IMAGE AVAILABLE]

20. 4,363,666, Dec. 14, 1982, Reinforced cement sheet product containing fibers other than asbestos, clay and thickener; Robert M. Johnson, et al., 106/711, **718**, 720; 524/4, 8 [IMAGE AVAILABLE]

21. 4,209,335, Jun. 24, 1980, Method and composition, including particular additive for hydraulic cement, for fixing waste matter; Ichiro Katayama, et al., 588/252; 106/645, 664, 667, 705, 709, **718**, 721, 811; 588/238 [IMAGE AVAILABLE]

22. 4,207,116, Jun. 10, 1980, Granulated material and process for the production of granulated materials; Karl Been, et al., **106/718**, 721 [IMAGE AVAILABLE]

23. 4,188,231, Feb. 12, 1980, Methods of preparing iron oxide mortars or cements with admixtures and the resulting products; Rudolph C. Valore, 106/700, 702, 703, 708, 711, **719**, 720, 725, 726, 823; 524/5, 6 [IMAGE AVAILABLE]

24. 4,144,078, Mar. 13, 1979, Masonry cement; Omar K. Colwell, **106/718** [IMAGE AVAILABLE]

25. 4,102,700, Jul. 25, 1978, Process for the production of a mixture to be utilized in the production of building materials and a device for carrying out the process; Ludwig Kwech, et al., 106/675, 679, 681, 709, 710, 716, **718**, 734, 738, 739, 792, 793 [IMAGE AVAILABLE]

26. 3,847,632, Nov. 12, 1974, MASONRY MATERIAL; Helmer L. Blengsli, **106/718**, 721, 734 [IMAGE AVAILABLE]

27. 3,790,394, Feb. 5, 1974, CONCRETES AND REINFORCED CONCRETES WITH A LOW EXPANSION COEFFICIENT; Regis Magnan, 106/692, 694, 695, 716, **718**, **719**, 735 [IMAGE AVAILABLE]

28. 3,645,762, Feb. 29, 1972, HYDRAULIC MORTAR OR CEMENT COMPOSITION; Franz Mikoteit, et al., **106/718**, 738 [IMAGE AVAILABLE]

=> s 166/292,293/ccls

```
        667 166/292/CCLS
        500 166/293/CCLS
L1      1067 166/292,293/CCLS
        ((166/292 OR 166/293)/CCLS)
```

=> s 106/694,695,696/ccls

```
        89 106/694/CCLS
        127 106/695/CCLS
        162 106/696/CCLS
L2      317 106/694,695,696/CCLS
        ((106/694 OR 106/695 OR 106/696)/CCLS)
```

=> s l1 or l2

L3 1361 L1 OR L2

=> s aluminum(3a)silicate#

```
        334933 ALUMINUM
        74477 SILICATE#
L4      14433 ALUMINUM(3A)SILICATE#
```

=> s l3 and l4

L5 36 L3 AND L4

=> s kaolin# or metakin# or halloysite# or dickite# or nacrite#

```
        30771 KAOLIN#
        0 METAKIN#
        1993 HALLOYSITE#
        1187 DICKITE#
        1139 NACRITE#
L6      31133 KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRITE#
```

=> s kaolin# or metakin# or halloysite# or dickite# or nacrite# or metamax

```
        30771 KAOLIN#
        0 METAKIN#
        1993 HALLOYSITE#
        1187 DICKITE#
        1139 NACRITE#
        0 METAMAX
L7      31133 KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRITE#
OR
        METAMAX
```

=> s kaolin# or metakaolin# or halloysite# or dickite# or nacrite# or metamax

```
        30771 KAOLIN#
        331 METAKAOLIN#
        1993 HALLOYSITE#
        1187 DICKITE#
        1139 NACRITE#
        0 METAMAX
```

L8 31186 KAOLIN# OR METAKAOLIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
OR METAMAX

=> d his

(FILE 'USPAT' ENTERED AT 09:41:12 ON 12 JUL 1999)  
L1 1067 S 166/292,293/CCLS  
L2 317 S 106/694,695,696/CCLS  
L3 1361 S L1 OR L2  
L4 14433 S ALUMINUM(3A)SILICATE#  
L5 36 S L3 AND L4  
L6 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L7 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L8 31186 S KAOLIN# OR METAKAOLIN# OR HALLOYSITE# OR DICKITE# OR NAC  
RIT

=> s l1 and (l4 or l8)

L9 40 L1 AND (L4 OR L8)

=> d his

(FILE 'USPAT' ENTERED AT 09:41:12 ON 12 JUL 1999)

L1 1067 S 166/292,293/CCLS  
L2 317 S 106/694,695,696/CCLS  
L3 1361 S L1 OR L2  
L4 14433 S ALUMINUM(3A)SILICATE#  
L5 36 S L3 AND L4  
L6 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L7 31133 S KAOLIN# OR METAKIN# OR HALLOYSITE# OR DICKITE# OR NACRIT  
E#  
L8 31186 S KAOLIN# OR METAKAOLIN# OR HALLOYSITE# OR DICKITE# OR NAC  
RIT  
L9 40 S L1 AND (L4 OR L8)  
L10 11278 S GYPSUM#  
L11 17 S L9 AND L10  
L12 13636 S FOAMING(3A)AGENT#  
L13 3 S L9 AND L12

=> s l9 and l12

L14 3 L9 AND L12

=> d l14 cit 1-3

1. 4,984,933, Jan. 15, 1991, Grouting method and apparatus; Martin F. Annett, et al., 405/150.2; **166/293**; 405/146, 263, 269 [IMAGE AVAILABLE]

2. 4,707,188, Nov. 17, 1987, Cement composition for underwater concreting; Kenji Tsuda, et al., 106/639, 730, 805; **166/293** [IMAGE AVAILABLE]

3. 4,300,633, Nov. 17, 1981, Method of cementing wells with foam-containing cement; Robert B. Stewart, 166/250.14, **292, 293** [IMAGE AVAILABLE]

=> d l11 cit 1-17

1. 5,346,012, Sep. 13, 1994, Fine particle size cement compositions and methods; James F. Heathman, et al., **166/293**; 106/727, 730, 737, DIG.1; **166/292** [IMAGE AVAILABLE]

2. 5,343,950, Sep. 6, 1994, Drilling and cementing extended reach boreholes; Arthur H. Hale, et al., **166/293, 292, 300**; 175/61, 65; 507/140 [IMAGE AVAILABLE]

3. 5,340,397, Aug. 23, 1994, Set retarded ultra fine cement compositions and methods; Lance E. Brothers, 106/727, 714, 724, 725, 819, 823; **166/293, 294**; 405/266; 523/130; 524/650 [IMAGE AVAILABLE]

4. 5,263,542, Nov. 23, 1993, Set retarded ultra fine cement compositions and methods; Lance E. Brothers, **166/293**; 106/714, 808 [IMAGE AVAILABLE]

5. 5,238,064, Aug. 24, 1993, Squeeze cementing; Jeffrey A. Dahl, et al., 166/293, 285 [IMAGE AVAILABLE]
6. 5,127,473, Jul. 7, 1992, Repair of microannuli and cement sheath; Kirk L. Harris, et al., 166/277, 281, 292, 297 [IMAGE AVAILABLE]
7. 5,125,455, Jun. 30, 1992, Primary cementing; Kirk L. Harris, et al., 166/292; 106/713, 714, 737; 166/291; 405/150.2 [IMAGE AVAILABLE]
8. 5,123,487, Jun. 23, 1992, Repairing leaks in casings; Kirk L. Harris, et al., 166/277, 281, 292 [IMAGE AVAILABLE]
9. 5,121,795, Jun. 16, 1992, Squeeze cementing; David P. Ewert, et al., 166/292; 106/713, 714, 737; 166/278, 293 [IMAGE AVAILABLE]
10. 5,086,850, Feb. 11, 1992, Well bore drilling direction changing method; Kirk L. Harris, et al., 175/61; 166/290, 291, 292 [IMAGE AVAILABLE]
11. 4,891,072, Jan. 2, 1990, Multi-component grouting system; John Cooper, 106/660, 691, 724, 778, 785, 811; 166/293; 405/259.6; 524/5 [IMAGE AVAILABLE]
12. 4,615,643, Oct. 7, 1986, Method of sealing off a mass of waste stock containing metal cations; Daniel Gouvenot, 405/128; 106/607, 624, 629, 632, 690, 705, 900; 166/293; 405/263, 267; 588/250 [IMAGE AVAILABLE]
13. 4,202,413, May 13, 1980, Well cementing process using presheared water swellable clays; Joseph U. Messenger, 166/292, 901 [IMAGE AVAILABLE]
14. 3,956,140, May 11, 1976, Drilling fluids; James Jang Woo Nahm, et al., 507/117; 166/293; 507/108, 219, 220, 925; 516/79; 524/445, 446, 595; 525/495, 504, 505, 508; 527/403; 528/143, 147, 148, 150, 158, 165 [IMAGE AVAILABLE]
15. 3,729,052, Apr. 24, 1973, HYDROTHERMAL TREATMENT OF SUBSURFACE EARTH FORMATIONS; Lyle Caldwell, 166/283, 281, 292 [IMAGE AVAILABLE]
16. 3,701,384, Oct. 31, 1972, METHOD AND COMPOSITION FOR CONTROLLING FLOW THROUGH SUBTERRANEAN FORMATIONS; Willis G. Routson, et al., 166/292, 270, 281; 405/264 [IMAGE AVAILABLE]
17. 3,563,313, Feb. 16, 1971, WELL CEMENTING METHOD USING QUICK GELLING CEMENT; Lloyd B. Spangle, 166/292 [IMAGE AVAILABLE]

=> d 19 cit 1-40

1. 5,476,142, Dec. 19, 1995, Flexible contaminant-resistant grout composition and method; Laura Kajita, 166/294; 106/803; 166/292; 405/264, 267 [IMAGE AVAILABLE]
2. 5,421,409, Jun. 6, 1995, Slag-based well cementing compositions and methods; Dan T. Mueller, et al., 166/292; 106/789; 166/293 [IMAGE AVAILABLE]
3. 5,402,849, Apr. 4, 1995, Use of dual density spacer fluids to improve cementing efficiency in horizontal wellbores; Alfred R. Jennings, Jr., 166/291, 50, 292, 312 [IMAGE AVAILABLE]
4. 5,351,759, Oct. 4, 1994, Slag-cement displacement by direct fluid contact; James J. W. Nahm, et al., 166/293, 285, 292, 295 [IMAGE AVAILABLE]

5. 5,346,012, Sep. 13, 1994, Fine particle size cement compositions and methods; James F. Heathman, et al., **166/293**; 106/727, 730, 737, DIG.1; **166/292** [IMAGE AVAILABLE]
6. 5,343,950, Sep. 6, 1994, Drilling and cementing extended reach boreholes; Arthur H. Hale, et al., **166/293**, **292**, 300; 175/61, 65; 507/140 [IMAGE AVAILABLE]
7. 5,340,397, Aug. 23, 1994, Set retarded ultra fine cement compositions and methods; Lance E. Brothers, 106/727, 714, 724, 725, 819, 823; **166/293**, 294; 405/266; 523/130; 524/650 [IMAGE AVAILABLE]
8. 5,320,172, Jun. 14, 1994, Method for improving cement placement in horizontal wells; Alfred R. Jennings, Jr., 166/291, 50, **292**, 312 [IMAGE AVAILABLE]
9. 5,314,022, May 24, 1994, Dilution of drilling fluid in forming cement slurries; Kenneth M. Cowan, et al., **166/293**, **292**, 295; 175/66; 507/140 [IMAGE AVAILABLE]
10. 5,263,542, Nov. 23, 1993, Set retarded ultra fine cement compositions and methods; Lance E. Brothers, **166/293**; 106/714, 808 [IMAGE AVAILABLE]
11. 5,238,064, Aug. 24, 1993, Squeeze cementing; Jeffrey A. Dahl, et al., **166/293**, 285 [IMAGE AVAILABLE]
12. 5,127,473, Jul. 7, 1992, Repair of microannuli and cement sheath; Kirk L. Harris, et al., 166/277, 281, **292**, 297 [IMAGE AVAILABLE]
13. 5,125,455, Jun. 30, 1992, Primary cementing; Kirk L. Harris, et al., **166/292**; 106/713, 714, 737; 166/291; 405/150.2 [IMAGE AVAILABLE]
14. 5,123,487, Jun. 23, 1992, Repairing leaks in casings; Kirk L. Harris, et al., 166/277, 281, **292** [IMAGE AVAILABLE]
15. 5,121,795, Jun. 16, 1992, Squeeze cementing; David P. Ewert, et al., **166/292**; 106/713, 714, 737; 166/278, **293** [IMAGE AVAILABLE]
16. 5,106,423, Apr. 21, 1992, Formation grouting method and composition useful therefor; William J. Clarke, 106/789, 714, 790; **166/293**; 405/266, 267, 269 [IMAGE AVAILABLE]
17. 5,086,850, Feb. 11, 1992, Well bore drilling direction changing method; Kirk L. Harris, et al., 175/61; 166/290, 291, **292** [IMAGE AVAILABLE]
18. 5,026,215, Jun. 25, 1991, Method of grouting formations and composition useful therefor; William J. Clarke, 405/266; 106/714, 789, 790; **166/293**; 405/267, 269 [IMAGE AVAILABLE]
19. 4,984,933, Jan. 15, 1991, Grouting method and apparatus; Martin F. Annett, et al., 405/150.2; **166/293**; 405/146, 263, 269 [IMAGE AVAILABLE]
20. 4,936,384, Jun. 26, 1990, Ca(OH).sub.2 -treated ceramic microsphere; Toshifumi Sugama, 166/283, **292** [IMAGE AVAILABLE]
21. 4,891,072, Jan. 2, 1990, Multi-component grouting system; John Cooper, 106/660, 691, 724, 778, 785, 811; **166/293**; 405/259.6; 524/5 [IMAGE AVAILABLE]
22. 4,886,550, Dec. 12, 1989, Flexible grout composition and method; William Alexander, 106/811, 632, 706; **166/293**; 405/267 [IMAGE AVAILABLE]



AVAILABLE]

23. 4,707,188, Nov. 17, 1987, Cement composition for underwater concreting; Kenji Tsuda, et al., 106/639, 730, 805; **166/293** [IMAGE AVAILABLE]
24. 4,696,698, Sep. 29, 1987, Flexible grout composition and method; Todd D. Harriett, 106/624, 632, 633; **166/292**; 405/267 [IMAGE AVAILABLE]
25. 4,651,824, Mar. 24, 1987, Controlled placement of underground fluids; Donovan B. Grable, 166/245, 55.1, 191, 254.1, 281, **292**, 297; 210/170; 405/129, 270 [IMAGE AVAILABLE]
26. 4,637,462, Jan. 20, 1987, Liquid mud ring control of underground liquids; Donovan B. Grable, 166/245, 254.1, **292**; 210/170; 405/129, 270 [IMAGE AVAILABLE]
27. 4,615,643, Oct. 7, 1986, Method of sealing off a mass of waste stock containing metal cations; Daniel Gouvenot, 405/128; 106/607, 624, 629, 632, 690, 705, 900; **166/293**; 405/263, 267; 588/250 [IMAGE AVAILABLE]
28. 4,568,708, Feb. 4, 1986, Composition and method for effecting seals in earth boreholes; Carl E. Mason, et al., 523/130; **166/293**; 507/225, 926 [IMAGE AVAILABLE]
29. 4,463,808, Aug. 7, 1984, Method for effecting seals in earth boreholes; Carl E. Mason, et al., **166/292**; 106/DIG.4 [IMAGE AVAILABLE]
30. 4,300,633, Nov. 17, 1981, Method of cementing wells with foam-containing cement; Robert B. Stewart, 166/250.14, **292**, **293** [IMAGE AVAILABLE]
31. 4,202,413, May 13, 1980, Well cementing process using presheared water swellable clays; Joseph U. Messenger, **166/292**, 901 [IMAGE AVAILABLE]
32. 3,990,903, Nov. 9, 1976, Hydrothermal cement and method of cementing well bores; William A. Mallow, 106/624, 635; **166/292** [IMAGE AVAILABLE]
33. 3,956,140, May 11, 1976, Drilling fluids; James Jang Woo Nahm, et al., 507/117; **166/293**; 507/108, 219, 220, 925; 516/79; 524/445, 446, 595; 525/495, 504, 505, 508; 527/403; 528/143, 147, 148, 150, 158, 165 [IMAGE AVAILABLE]
34. 3,918,523, Nov. 11, 1975, Method and means for implanting casing; Ivan L. Stuber, 166/285, 242.1, **292** [IMAGE AVAILABLE]
35. 3,887,385, Jun. 3, 1975, Dry light-weight cement composition; Bernardus B. Quist, et al., 106/668; **166/293** [IMAGE AVAILABLE]
36. 3,866,683, Feb. 18, 1975, METHOD FOR PLACING CEMENT IN A WELL; George P. Maly, et al., **166/292**, 291, 312 [IMAGE AVAILABLE]
37. 3,729,052, Apr. 24, 1973, HYDROTHERMAL TREATMENT OF SUBSURFACE EARTH FORMATIONS; Lyle Caldwell, 166/283, 281, **292** [IMAGE AVAILABLE]
38. 3,701,384, Oct. 31, 1972, METHOD AND COMPOSITION FOR CONTROLLING FLOW THROUGH SUBTERRANEAN FORMATIONS; Willis G. Routson, et al., **166/292**, 270, 281; 405/264 [IMAGE AVAILABLE]
39. 3,581,825, Jun. 1, 1971, PERMAFROST CEMENTING PROCESS; Joseph U. Messenger, 166/288, **292** [IMAGE AVAILABLE]

40. 3,563,313, Feb. 16, 1971, WELL CEMENTING METHOD USING QUICK GELLING CEMENT; Lloyd B. Spangle, 166/292 [IMAGE AVAILABLE]